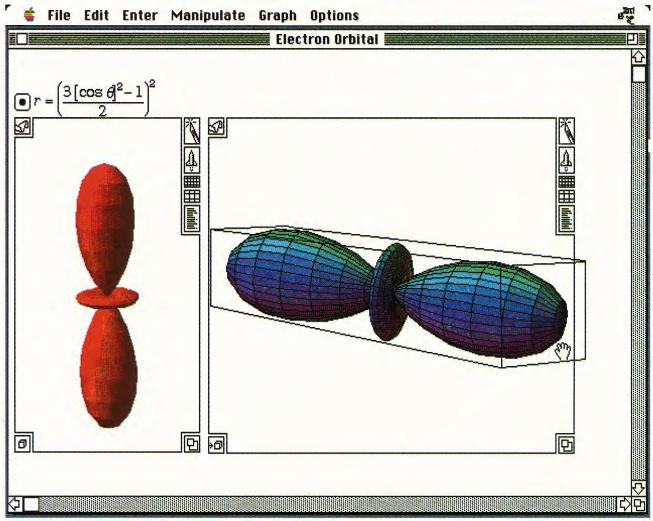
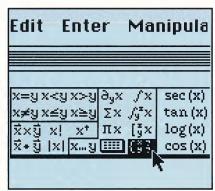
TheoristTM

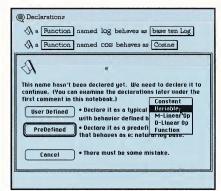
WYSIWYG symbolic algebra and graphing program for the interactive investigation of mathematical relationships.



Theorist can create 3-D color, gray scale, or black and white graphs as well as 2-D plots. Equations can be viewed and rotated at any angle with various sampling densities for optimum speed.



All mathematical structures and symbols are available from the palette for easy construction, or via the keyboard for power users.



2 Declare your variables, operators, and functions to your specifications or let Theorist do it for you.

Q Declarations
$$\Box \int_{0}^{\pi} x(2^{2} + x^{2})^{3} dx$$

$$\Box \int_{0}^{\pi} x(2^{2} + x^{2})^{3} dx = \int_{0}^{\pi} x(x^{6} + 12x^{4} + 48x^{2} + 64) dx$$

$$\Box \int_{0}^{\pi} x(2^{2} + x^{2})^{3} dx = \int_{0}^{\pi} (x^{7} + 12x^{5} + 48x^{3} + 64x) dx$$

$$\Box \int_{0}^{\pi} x(2^{2} + x^{2})^{3} dx = \frac{1}{8} n^{8} + 2n^{6} + 12n^{4} + 32n^{2}$$

$$\Box \int_{0}^{\pi} x(2^{2} + x^{2})^{3} dx = 4593.58119740231934$$

3 Manipulate, simplify, expand or calculate your equations to an algebraic and/or numeric answer.

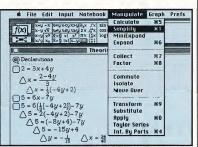


Intuitive Mathematics

Theorist is a new WYSIWYG symbolic algebra and graphing program for the Macintosh, designed to make mathematics easy and more productive. Create, solve, and manipulate equations on screen more easily and accurately than you can with paper, pencil, and a calculator. There are no programming languages to learn, no syntax errors to puzzle with. Theorist is intuitive from the very beginning!

Easy-To-Use Interface

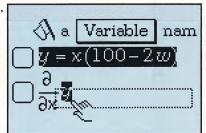
Quickly enter equations and organize them with the built-in outliner. Structures and symbols are available in a point and click manner from the palette or via keyboard commands. There are no magic keystrokes or formats to learn. You can begin solving your equations right away, even without reading the manual!



Theorist's easy to use palette and outlining process

Symbolic Manipulations

When your equations are entered, there are numerous manipulations that you can do. You may calculate your answer numerically, or simplify your work algebraically. With the pointing hand cursor, you can rearrange your equations by dragging subexpressions around or substituting one equation into another. When you are finished

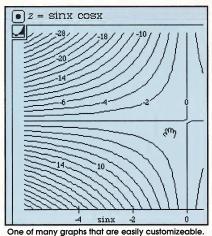


Manipulate equations by hand for quick results.

and satisfied with your answers, you may print them out from Theorist, or transfer your equations into Expressionist™, the popular equation editor, for typeset quality equations in your word processing and desktop publishing documents.

Fast, Powerful Graphics

You can graph mathematical relationships in two and three dimensions. You can choose from eleven standard styles, or program your own graphs using Theorist's parametrically defined plots. In 3-D, use the hand cursor to rotate your graph the way you would rotate a globe. In 2-D, move your function up, down or left and right, the way you would move a piece of paper. To save drawing time, you can reduce the number of data points, and then change to more data points when you want to



investigate with higher accuracy. You can even change the equation(s) and the graph will redraw instantly. Theorist enables you to visualize, animate, manipulate, solve, present, save, and export your equations in an accurate and efficient manner. This allows you to spend more time investigating your work and results, and less time learning how to investigate.

Mathematical Features

- Symbolic and numeric integration
- Symbolic and numeric differentiation
- Real and complex trigonometry
- Real and complex hyperbolic functions
- Symbolic and numeric matrix & linear algebra
- Complex arithmetic and algebra
- Chebyshev, Legendre, spherical harmonics
- Gamma, erf, and other special functions
- · Case theories for side derivations
- · Wildcard variables for substitutions
- Transformational rule "programming"
- Automatic Taylor series generation
- Symbolic and numeric vector dot & cross products
- Matrix powers, inversions, adjoint, determinants
- Iterated Summations and Products
- Symbolic polynomial expansion, long division, collection, factoring
- Several pre-worked out mathematical Notebook files included for more productivity
- Built in outliner for ease of use and visualization
- Non-commutative algebra
- 19 digit precision
- 68881 math co-processor version included
- Much more!

Graphic Features

- Polar, linear, semi-log, parametric, density plots
- Rectangular, cylindrical, spherical coordinates
- Black and white, gray scale, and color graphs
- Wireframe or hidden line solid modeling
- · Transparent, translucent, illuminated shading
- Save as PICT or EPS files for high quality output
- Arbitrary non-linear coordinate systems
- Multiple line plots and surfaces
- Animation for modeling and presentations
- Contour plots
- Import and export equations to and from Expressionist[™], the equation editor/typesetter

System Requirements:

1 MB of RAM Mac Plus, SE, SE/30, Portable Mac II, IIcx, IIci, IIx, IIfx

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